

Amendments to the Claims:

Please kindly amend the claims as follows. This listing will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) ~~A vaccine~~ An immunogenic composition capable of eliciting neutralizing antibodies in a subject to a pathogenic organism which antibodies are present in vaginal secretions, intestinal secretions, lung secretions or feces, which composition comprises:

- (a) an antigen comprising a protein or peptide having
 - (i) an endogenous hydrophobic sequence of between about 3 and, about 50 non-polar or uncharged amino acids;
 - (ii) added to the protein or peptide, an exogenous hydrophobic material comprising a sequence of between about 3 and about 50 non-polar or uncharged amino acids or a C8-C18 fatty acyl group; or
 - (iii) both (i) and (ii),
- (b) ~~complexed with said antigen,~~ a composition comprising proteosomes, bioadhesive nanoemulsions, or both, wherein said composition is complexed or coupled with (a),

wherein said complexed or coupled protein or peptide maintains a native structure of antigenic epitopes such that, upon administration to said subject, the antigen induces neutralizing antibodies in one or more of vaginal secretions, intestinal secretions, lung secretions and feces; ~~capable of neutralizing said pathogenic organism.~~

2. (Withdrawn) A vaccine composition according to claim 1 wherein the endogenous hydrophobic sequence or the exogenous material is a sequence of about 5 to about 29 amino acids.
3. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 1 wherein the exogenous hydrophobic material is a C8-C18 fatty acyl group.
4. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 3 wherein the exogenous hydrophobic material is lauroyl.
5. (Withdrawn) A vaccine composition according to claim 1 wherein the exogenous hydrophobic material is Phe Leu Leu Ala Val or Val-Aia-Leu-Leu-Phe.
6. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 1 wherein the antigen ~~[[is-a]]~~ is a peptide or a peptide oligomer.
7. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 1 wherein the protein is a viral envelope protein.
8. (Currently amended) ~~A vaccine~~ An immunogenic composition according to ~~claim 5~~ claim 7 wherein the viral envelope protein is an oligomeric gp160 from human immunodeficiency virus.
9. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 8 wherein said oligomeric gp160 has the sequence of residues 33-681 of SEQ ID NO: 1.
10. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 1 wherein the protein or peptide is recombinantly produced.

11. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 1 wherein the antigenic protein or peptide natively contains at least one cysteine residue or has at least one added cysteine residue.

12. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 1 wherein the proteosomes are hydrophobic, multimolecular membrane proteins.

13. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 1 formed by:

- (a) bonding the hydrophobic material to said protein or peptide to form a hydrophobic-hydrophilic compound; and
- (b) admixing said compound with said proteosomes, bioadhesive nanoemulsions, or both such that said antigen is complexed with said proteosomes or nanoemulsion.

14. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 13 wherein said admixing step is performed in the presence of a detergent, and is followed by the step of

- (c) removing the detergent by dialysis.

15. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 13 wherein said admixing step is performed lyophilization.

16. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 1 formulated for intranasal or respiratory administration.

17. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 1 wherein the vaccine is in a dosage form suitable for multiple inoculations.

18. (Currently amended) ~~A vaccine~~ An immunogenic composition according to claim 1 wherein the pathogenic organism is a causative agent of a mucosally-transmitted or sexually transmitted disease.